

December 6, 2011

Christine Kump-Mitchell, P.E.
Environmental Engineer-Permits Section
MDNR Hazardous Waste Program
7545 South Lindbergh, Suite 210
St. Louis, MO 63125-4839

**RE: Available Groundwater Data for Areas 1 and 8
Boeing Tract 1, Hazelwood, Missouri**

Dear Christine:

As a follow-up to our meeting in Jefferson City, attached are all the groundwater data available for Areas 1 (Runway Protection Zone) and 8 (Office Complex North). The following discussion may help you decide whether these areas can be removed from the permit at this point or whether the data warrant continued sampling and a subsequent permit modification. It is our opinion, based on the (i) groundwater concentrations generally below the screening values; (ii) absence of risk to human health or the environment; (iii) proposed land use restrictions; and (iv) interim remedial actions completed in these areas; that the residual concentrations do not warrant any further sampling or corrective action. Hence, it will be most efficient and cost effective for Boeing as well as the Missouri Department of Natural Resources (MDNR) to remove these areas from the permit at this point. This will certainly avoid the effort necessary to perform the permit modification within a year or two of the 2012 permit.

Area 1 Runway Protection Zone

Figure 1 shows the location of Area 1 Runway Protection Zone. Table 1 lists all the available groundwater data for the analytes for which the detected concentrations exceeded the screening values. These concentrations are shown in green. The table also shows the constituents that were always reported below the reporting limits but for which half the reporting limits exceeded the screening values. These values are color coded in orange.

The table indicates the following:

1. 1,2-Dibromoethane was once detected in MW-A1 at a concentration of 1 µg/L. All other concentrations were below the detection limits.
2. Benzene was detected at 34 µg/L in MW-A15 in July 2003, but 1.1 µg/L with a "J" qualifier in November 2008.
3. Benzene was detected at 28 and 29 µg/L in MW-A23 in July 2003. The concentrations were reported below 2 µg/L in November 2008 and May 2010.



4. Benzene was detected in B45S2, B45S3, and B45S7 at 29.4 µg/L, 23.5 µg/L, and 6.7 µg/L, respectively in November 2002. These piezometers are not currently available for sampling. Based on the other data, it is reasonable to assume that benzene concentrations in this area would be less than the concentrations detected nine years ago.
5. Concentrations of methylene chloride indicated sporadic hits above screening value, but these are most likely laboratory artifacts.
6. Naphthalene was detected only in MWA-28 in May and November 2010 and is likely to remain above the screening value for several years. Note naphthalene does not have a maximum contaminant level (MCL) and the screening value used for comparison is the tap water concentration.
7. Other exceedences pertain to arsenic and cadmium that are naturally occurring.
8. No measurable light non-aqueous phase liquid (LNAPL) has been detected in this area.

Area 8 Office Complex North

Figure 2 shows the location of Area 8 Office Complex North. Table 2 lists all the available groundwater data for the analytes for which the detected concentrations exceeded the screening values. These concentrations are shown in green. The table also shows the constituents that were always reported below the reporting limits but for which half the reporting limits exceeded the screening values. These values are shown in orange.

The table indicates the following:

1. 1,1-Dichloroethane was detected in monitoring well MW10S during several monitoring events since September 2000. Concentrations have significantly decreased since then and most recently were below the screening value.
2. Bromomethane was once detected once in MW4 in May 2002 with a "J" qualifier. It was not detected before or since then.
3. Trichloroethene was detected in MW10D above the MCL but concentrations show a clear decreasing trend. Concentrations for three sampling events were below the MCL since April 2010 based on low flow sampling but slightly above using snap samplers.
4. Vinyl chloride has been detected in MW10S since May 2001. Concentrations in four sampling events since November 2008 have been below the screening value.
5. Sporadic exceedance of naturally occurring metals has been detected.

Summary

For reasons mentioned in the introduction and the few detections identified in these areas, there

appears to be minimal value in continuing to monitor these wells or to retain these areas in the permit. With the sources removed in these areas, it is reasonable to conclude that sampling for a few more events will not add much value.

We look forward to your review. Please do not hesitate to call if you have any questions.

Sincerely,

Joseph W. Haake

cc: Amber Whisnant, USEPA Region VII
 Richard B. Nussbaum, MDNR
 Bruce Stuart, MDNR
 Mark H. Allen, Boeing
 Atul M. Salhotra, RAM Group of Gannett Fleming, Inc.

Table 1
Comprehensive Groundwater Analytical Data for Area 1 - Chemicals with Detected Concentrations/Half the Reporting Limits Exceeding Screening Values
Boeing Tract 1, Hazelwood, Missouri

Well ID	Date	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1-Dichloroethane	1,2,3-Trichloropropene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dibromomethane	1,3-Dichloropropene, Total	1,4-Dichloro-2-butene, Total	2-Nitropropane	Acrolein	Acrylonitrile	Allyl chloride	Benzene	cis-1,3-Dichloropropene	cis-1,4-Dichloro-2-butene	Hexachlorobutadiene
Screening Value	0.52	0.067	2.4	0.00072	0.00032	0.05	0.05	0.43	0.0012	0.0018	0.042	0.045	0.65	5	0.43	0.0012	0.86	
MW-A1	5/7/2001																	
	7/26/2001																	
	7/2/2003														<0.5			
	11/19/2008	<5	<5	<5	<5	<5	1		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	11/4/2010	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
MW-A3	6/26/2003	<1	<1	<1	<1	<2	<1					<50	<50		<1	<1		<1
	11/19/2008	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	11/4/2010	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
MW-A15	7/2/2003	<10	<10	<10	<10	<20	<10				<500	<500		34	<10		<10	
	11/18/2008	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	1.1 J	<5	<5	<5
MW-A17	6/26/2003	<1	<1	<1	<1	<2	<1				<50	<50		<1	<1		<1	
MW-A18	6/26/2003	<1	<1	<1	<1	<2	<1				<50	<50		<1	<1		<1	
	7/29/2003	<5	<5	<5	<5	<5	<5			<10	<10	<10	<5	<5	<5	<5	<10	
MW-A22	11/1/2002														2			
	3/20/2003														1.4			
	11/18/2008	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	5/3/2010	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
MW-A23	7/2/2003														28			
	7/29/2003	<5	<5	<5	<5	<5	<5				<10	<10	<10	<5	29	<5		<10
	11/18/2008	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
MW-A25	5/3/2010	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	11/18/2008	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	4/30/2010	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
MW-A26	11/4/2010	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	11/18/2008	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	1.4 J	<5	<5	<5
MW-A27	4/30/2010	<5	<5	1.2 J	<5	<5	<5		<5	<10	<50	<100	<5	<5	1.6 J	<5	<5	<5
	11/1/2002														<0.5			
	7/29/2003	<5	<5	<5	<5	<5	<5				<10	<10	<10	<5	<5	<5	<5	<10
	11/18/2008	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	5/3/2010	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
MW-A28	5/3/2010 (Dup)	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	5/3/2010 - SS	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	5/3/2010 - LF	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	1.6 J	<5	<5	<5
	11/3/2010 - SS	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	2.3	<5	<5	<5
MW-A29	11/3/2010 - LF	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	2.4	<5	<5	<5
	11/18/2008	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
	5/3/2010	<5	<5	<5	<5	<5	<5		<5	<10	<50	<100	<5	<5	<2	<5	<5	<5
B40E1	11/14/2002	<1	<1	<1	<1	<1	<1		<1						<1	<1		
B40E2	11/14/2002	<1	<1	<1	<1	<1	<1		<1						<1	<1		
B40S1	11/14/2002	<1	<1	<1	<1	<1	<1		<1						<1	<1		

Table 1

Comprehensive Groundwater Analytical Data for Area 1 - Chemicals with Detected Concentrations/Half the Reporting Limits Exceeding Screening Values
 Boeing Tract 1, Hazelwood, Missouri

Well ID	Date	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1-Dichloroethane	1,2,3-Trichloropropene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,2-Dibromomethane	1,3-Dichloropropene, Total	1,4-Dichloro-2-butene, Total	2-Nitropropane	Acrolein	Acrylonitrile	Allyl chloride	Benzene	cis-1,3-Dichloropropene	cis-1,4-Dichloro-2-butene	Hexachlorobutadiene
Screening Value	0.52	0.067	2.4	0.00072	0.00032	0.05	0.05	0.43	0.0012	0.0018	0.042	0.045	0.65	5	0.43	0.0012	0.86	
B40S2	11/14/2002	<1	<1	<1	<1	<1	<1	<1						<1	<1		<1	
B40W1	11/14/2002	<1	<1	<1	<1	<1	<1	<1						<1	<1		<1	
B45CMW-3A	7/2/2003	<1	<1	<1	<1	<2	<1							<1	<1		<1	
B45CMW-3B	6/26/2003	<1	<1	<1	<1	<2	<1							<1	<1		<1	
B45CS1D	11/15/2002															<5		
B45CS2	11/14/2002															<5		
B45CS3D	11/20/2002															<0.5		
B45S1D	11/18/2002															<5		
B45S2	11/18/2002															29.4		
B45S3	11/18/2002															23.5		
B45S4	11/18/2002															<5		
	11/18/2002 (Dup)															<5		
B45S5D	11/19/2002															<5		
B45S6	11/18/2002															<5		
B45S7	11/19/2002															6.7		

Notes:

NA: Not available



1/2RL > SV
 Detect > SV

Table 1
Comprehensive Groundwater Analytical Data for Area 1 - Chemicals with Detected Concentrations/Half the Reporting Limits Exceeding Screening Values
Boeing Tract 1, Hazelwood, Missouri

Well ID	Date	Hexachloroethane	Methacrylonitrile	Methylene chloride	Naphthalene	Nitrobenzene	Pentachloroethane	trans-1,4-Dichloro-2-butene	Vinyl chloride	Arsenic	Arsenic, Dissolved	Cadmium
	Screening Value	4.8	1	5	0.14	0.12	0.75	0.0012	2	10	10	5
MW-A1	5/7/2001									44	20	<2
	7/26/2001									51	27	42 J
	7/2/2003			<5	<5							
	11/19/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2	89		
	11/4/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
MW-A3	6/26/2003			<5	<5					<1		
	11/19/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2	23 J		
	11/4/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
MW-A15	7/2/2003			<50	<50					<10		
	11/18/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
MW-A17	6/26/2003			<5	<5					<1		
MW-A18	6/26/2003			<5	<5					<1		
	7/29/2003	<5	4.8J	<10				<5	<5			
MW-A22	11/1/2002											
	3/20/2003											
	11/18/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
	5/3/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
MW-A23	7/2/2003											
	7/29/2003		<5	6J	<10			<5	<5			
	11/18/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
	5/3/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
MW-A25	11/18/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
	4/30/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
	11/4/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
MW-A26	11/18/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
	4/30/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	1.8 J			
MW-A27	11/1/2002											
	7/29/2003		<5	5.5J	<10			<5	<5			
	11/18/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
	5/3/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
	5/3/2010 (Dup)	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
MW-A28	5/3/2010 - SS	< 10	< 10	< 5	2 J	< 50	< 20	< 10	< 2			
	5/3/2010 - LF	< 10	< 10	< 5	4.8 J	< 50	< 20	< 10	< 2			
	11/3/2010 - SS	< 10	< 10	< 5	6.8 J	< 50	< 20	< 10	< 2			
	11/3/2010 - LF	< 10	< 10	< 5	12.2	< 50	< 20	< 10	< 2			
MW-A29	11/18/2008	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
	5/3/2010	< 10	< 10	< 5	< 10	< 50	< 20	< 10	< 2			
B40E1	11/14/2002			<1	<1					<1		
B40E2	11/14/2002			<1	<1					<1		
B40S1	11/14/2002			<1	<1					<1		

Table 1
Comprehensive Groundwater Analytical Data for Area 1 - Chemicals with Detected Concentrations/Half the Reporting Limits Exceeding Screening Values
Boeing Tract 1, Hazelwood, Missouri

Well ID	Date	Hexachloroethane	Methacrylonitrile	Methylene chloride	Naphthalene	Nitrobenzene	Pentachloroethane	trans-1,4-Dichloro-2-butene	Vinyl chloride	Arsenic	Arsenic, Dissolved	Cadmium
Screening Value	4.8	1	5	0.14	0.12	0.75	0.0012	2	10	10	5	
B40S2	11/14/2002			<1	<1				<1			
B40W1	11/14/2002			<1	<1				<1			
B45CMW-3A	7/2/2003			<5	<5				<1			
B45CMW-3B	6/26/2003			<5	5.3				<1			
B45CS1D	11/15/2002											
B45CS2	11/14/2002											
B45CS3D	11/20/2002											
B45S1D	11/18/2002											
B45S2	11/18/2002											
B45S3	11/18/2002											
B45S4	11/18/2002											
	11/18/2002 (Dup)											
B45S5D	11/19/2002											
B45S6	11/18/2002											
B45S7	11/19/2002											

Notes:

NA: Not available



1/2RL > SV
Detect > SV

Table 2
Comprehensive Groundwater Analytical Data for Area 8 - Chemicals with Detected Concentrations/Half the Reporting Limits Exceeding Screening Values
Boeing Tract 1, Hazelwood, Missouri

Well ID	Date	1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1-Dichloroethane	1,2,3-Trichloropropene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,3-Dichloropropene, Total	1,4-Dichloro-2-butene, Total	2-Nitropropane	Acrolein	Acrylonitrile	Allyl chloride	Bromomethane	cis-1,3-Dichloropropene	cis-1,4-Dichloro-2-butene	Hexachlorobutadiene	Hexachloroethane	
		Screening Value	0.52	0.067	2.4	0.00072	0.00032	0.05	0.43	0.0012	0.0018	0.042	0.045	0.65	8.7	0.43	0.0012	0.86	4.8
Sub-area 8A																			
B22011	7/25/2000			<1											<2				
B22013	11/14/2000			<5											<10				
MW10D	9/26/2000			<5											<10				
	1/12/2001			<5											<10				
	5/9/2001			<1											<1				
	7/20/2001			<1											<1				
	10/25/2001			<1											<1				
	3/8/2002			<1											<1				
	5/29/2002			<1											<1				
	8/12/2002			<1											<1				
	12/6/2002			<1											<1				
	3/14/2003			<1											<1				
	6/25/2003			<1											<1				
	11/20/2008	<5	<5	<5	<5	<5	<5			<50	<100	<5	<5	<10	<5	<5	<5	<10	
	4/26/2010 - LF	<5	<5	<5	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
	4/26/2010 - SS	<5	<5	<5	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
	10/25/2010 - LF	<5	<5	<5	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
	10/25/2010 - SS	<5	<5	<5	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
	7/12/2011	<5	<5	<5	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
MW10S	9/26/2000			16											<10				
	1/9/2001			13											<10				
	5/9/2001			17											<1				
	7/20/2001			17 H											<1				
	10/25/2001			16 H											<1				
	3/7/2002			14 H											<1				
	5/29/2002			10											<1				
	8/12/2002			13											<1				
	12/3/2002			8.1											<1				
	3/14/2003			8.7											<1				
	6/25/2003			11											<1				
	7/20/2001 (Dup)			18											<1				
	10/25/2001 (Dup)			16 H											<1				
	3/7/2002 (Dup)			14 H											<1				
	11/20/2008	<5	<5	3.5 J	<5	<5	<5			<50	<100	<5	<5	<10	<5	<5	<5	<10	
	4/26/2010 - LF	<5	<5	2.2 J	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
	4/26/2010 - SS	<5	<5	<5	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
	10/25/2010 - LF	<5	<5	2.4 J	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
	10/25/2010 - SS	<5	<5	1.6 J	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10
	7/12/2011	<5	<5	1.6 J	<5	<5	<5	<5	<5	<10	<50	<100	<5	<5	<10	<5	<5	<5	<10

Table 2
Comprehensive Groundwater Analytical Data for Area 8 - Chemicals with Detected Concentrations/Half the Reporting Limits Exceeding Screening Values
Boeing Tract 1, Hazelwood, Missouri

Well ID	Date	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	1,1-Dichloroethane	1,2,3-Trichloropropene	1,2-Dibromo-3-chloropropane	1,2-Dibromoethane	1,3-Dichloropropene, Total	1,4-Dichloro-2-butene, Total	2-Nitropropane	Acrolein	Acrylonitrile	Allyl chloride	Bromomethane	cis-1,3-Dichloropropene	cis-1,4-Dichloro-2-butene	Hexachlorobutadiene	Hexachloroethane
Screening Value		0.52	0.067	2.4	0.00072	0.00032	0.05	0.43	0.0012	0.0018	0.042	0.045	0.65	8.7	0.43	0.0012	0.86	4.8
Sub-area 8B																		
B220N1	7/25/2000																	
	4/29/2004																	
B220N2	9/20/2000																	
B220N3	9/20/2000																	
B220N4	7/29/2005	<1	<1	<1	<1	<2	<1				<50	<10		<1	<1		<1	
	9/29/2005																	
	4/11/2006	<1	<1	<1	<1	<1	<1				<50	<10		<1	<1		<1	
	11/21/2008																	
B220N5	7/29/2005	<1	<1	<1	<1	<2	<1				<50	<10		<1	<1		<1	
	9/29/2005																	
	4/11/2006	<1	<1	<1	<1	<1	<1				<50	<10		<1	<1		<1	
B220N6	9/30/2005																	
	4/11/2006	<1	<1	<1	<1	<1	<1				<50	<10		<1	<1		<1	
	11/21/2008																	
MW4	7/27/2000			<1											<2			
	1/9/2001			<5											<10			
	5/9/2001			<1											<1			
	7/20/2001			<1											<1			
	10/25/2001			<1											<1			
	3/8/2002			<1											<1			
	5/29/2002			<1											51.8 J			
	6/25/2003			<1											<1			
	11/21/2008																	
	11/21/2008 (Dup)																	
	4/28/2010																	
Sub-area 8C																		
B221E1	7/25/2000																	
B221E2	7/26/2000			<1											<2			
B221E3	7/26/2000			<1											<2			

Notes:

NA: Not available

1/2RL > SV
Detect > SV

Table 2
Comprehensive Groundwater Analytical Data for Area 8 - Chemicals with Detected Concentrations/Half the Reporting Limits Exceeding Screening Values
Boeing Tract 1, Hazelwood, Missouri

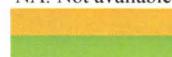
Well ID	Date	Methacrylonitrile	Naphthalene	Nitrobenzene	Pentachloroethane	trans-1,4-Dichloro-2-butene	Trichloroethene	Vinyl chloride	Arsenic, Dissolved	Barium	Chromium	Lead	Manganese	Manganese, Dissolved	TPH as Diesel	
Screening Value		1	0.14	0.12	0.75	0.0012	5	2	10	10	2000	100	15	880	880	34300
Sub-area 8A																
B220I1	7/25/2000						220 D	<2								
B220I3	11/14/2000						<5	<5								
MW10D	9/26/2000						<5	<5	<10		418	105	10.7			
	1/12/2001						<5	<10	<50		367	59	<50			
	5/9/2001						<1	<1	<5		310	<2	<5			
	7/20/2001						<1	<1	<5		410	3.4	7.4			
	10/25/2001						<1	<1	<5		440	16	16			
	3/8/2002						1.2	<1								
	5/29/2002						<1	<1								
	8/12/2002						<1	<1								
	12/6/2002						<1	<1								
	3/14/2003						<1	<1								
	6/25/2003						<1	<1								
	11/20/2008	< 10	< 10	< 50	< 20	< 10	15.4	< 2	0.17 J		398	12.8		939		
	4/26/2010 - LF	< 10	< 10	< 50	< 20	< 10	4.1 J	< 2	< 25	< 25	315	6.8 J		948	301	
	4/26/2010 - SS	< 10	< 10	< 50	< 20	< 10	8.2	< 2	< 25		323	10.1		500		
	10/25/2010 - LF	< 10	< 10	< 50	< 20	< 10	2.4 J	< 2	42.2					1880		
	10/25/2010 - SS	< 10	< 10	< 50	< 20	< 10	5.3	< 2	< 25					1650		
	7/12/2011	< 10	< 10	< 50	< 20	< 10	< 5	< 2								
MW10S	9/26/2000						<5	<5	23.5		1010	123	47.6			
	1/9/2001						<5	<10	<250		3600	610	<250			
	5/9/2001						<1	3.1	<5		490	13	5.7			
	7/20/2001						<1	3.6 H	<5		250	3.4	6.4			
	10/25/2001						<1	2.8 H	<5		190	6.7	7			
	3/7/2002						<1	2.4 H								
	5/29/2002						<1	2.7								
	8/12/2002						<1	2.4								
	12/3/2002						<1	2.4								
	3/14/2003						<1	2.6								
	6/25/2003						<1	1.4								
	7/20/2001 (Dup)						<1	3.3	<5		280	3.8	5.8			
	10/25/2001 (Dup)						<1	2.9 H	<5		200	6.7	8.8			
	3/7/2002 (Dup)						<1	2.4 H								
	11/20/2008	< 10	< 10	< 50	< 20	< 10	57.4	0.9 J	11 J		257	< 10		1630		
	4/26/2010 - LF	< 10	< 10	< 50	< 20	< 10	< 5	1.3 J	< 25	< 25	216	5.2 J		2080	2000	
	4/26/2010 - SS	< 10	< 10	< 50	< 20	< 10	< 5	1.4 J	31.7		244	< 10		1920		
	10/25/2010 - LF	< 10	< 10	< 50	< 20	< 10	< 5	1.5 J	< 25					1810		
	10/25/2010 - SS	< 10	< 10	< 50	< 20	< 10	< 5	1.4 J	< 25					1960		
	7/12/2011	< 10	< 10	< 50	< 20	< 10	< 5	< 2								

Table 2
Comprehensive Groundwater Analytical Data for Area 8 - Chemicals with Detected Concentrations/Half the Reporting Limits Exceeding Screening Values
Boeing Tract 1, Hazelwood, Missouri

Well ID	Date	Methacrylonitrile	Naphthalene	Nitrobenzene	Pentachloroethane	trans-1,4-Dichloro-2-butene	Trichloroethene	Vinyl chloride	Arsenic, Dissolved	Barium	Chromium	Lead	Manganese, Dissolved	TPH as Diesel
Screening Value		1	0.14	0.12	0.75	0.0012	5	2	10	2000	100	15	880	34300
Sub-area 8B														
B220N1	7/25/2000													
	4/29/2004													35000
B220N2	9/20/2000								13.2		332	44.3	19.2	<500
B220N3	9/20/2000								17.7		518	59.4	18.8	<500
B220N4	7/29/2005	<1					<1	<1						
	9/29/2005	<5					<1	<1						
	4/11/2006	<5					<1	<1						
	11/21/2008								14 J			4.2 J		
B220N5	7/29/2005	<1					<1	<1						
	9/29/2005	<5					<1	<1						
	4/11/2006	<5					<1	<1						
B220N6	9/30/2005	<5					<1	<1						
	4/11/2006	<5					<1	<1						
	11/21/2008								15 J			<10		
MW4	7/27/2000						<1	<2	34.9		783	153	49.3	<500
	1/9/2001						<5	<10	<50		440	72	<50	
	5/9/2001						<1	<1	<5		320	15	6.3	
	7/20/2001						<1	<1	<5		220	5.2	7.1	
	10/25/2001						<1	<1	<5		370	7.9	6.1	
	3/8/2002						<1	<1						
	5/29/2002						<1	<1						
	6/25/2003						<1	<1						
	11/21/2008								16 J			<10		
	11/21/2008 (Dup)								16 J			<10		
Sub-area 8C														
B221E1	7/25/2000													<500
B221E2	7/26/2000						<1	<2						<830
B221E3	7/26/2000						<1	<2						<500

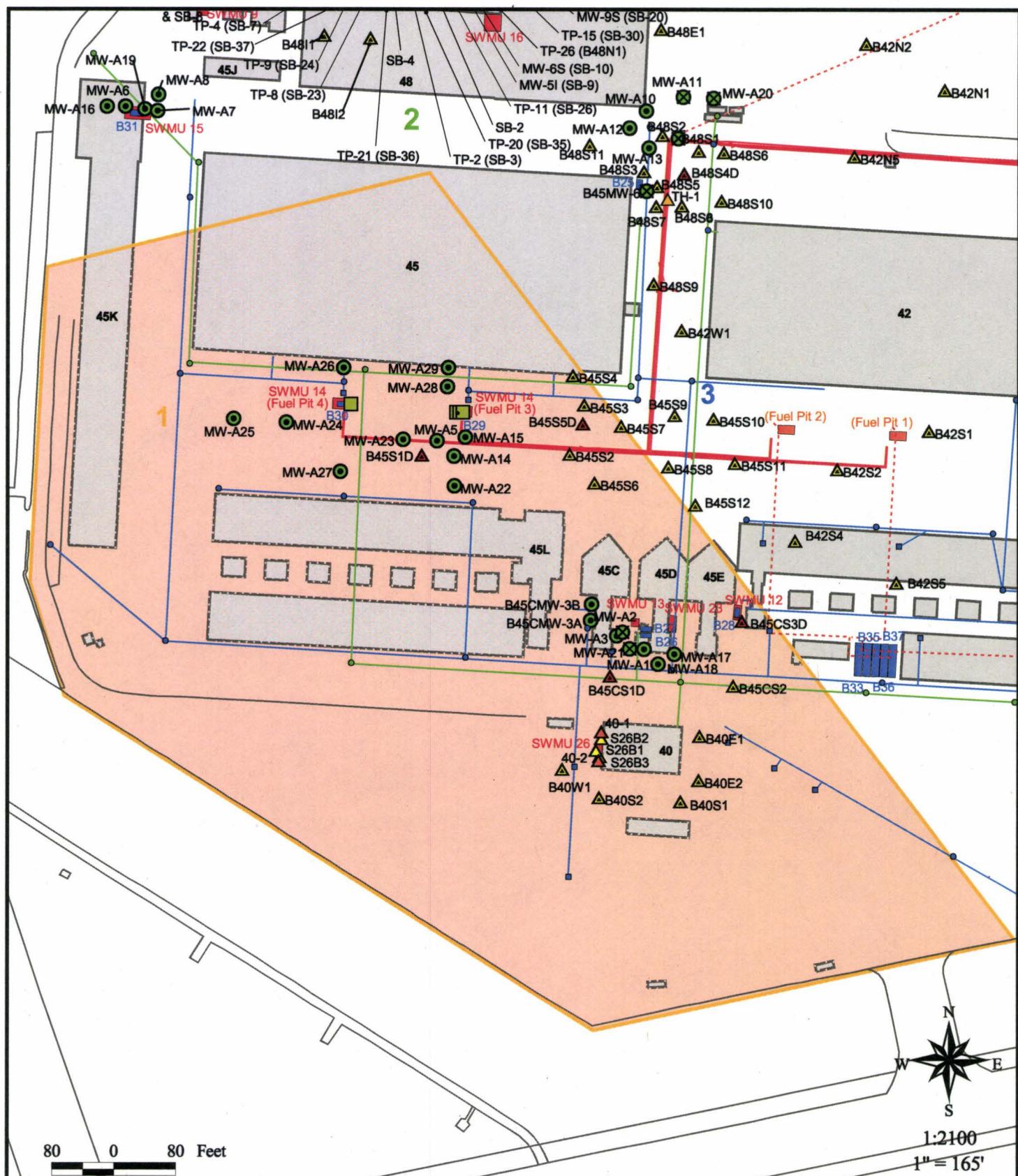
Notes:

NA: Not available



1/2 RL > SV

Detect > SV



Legend

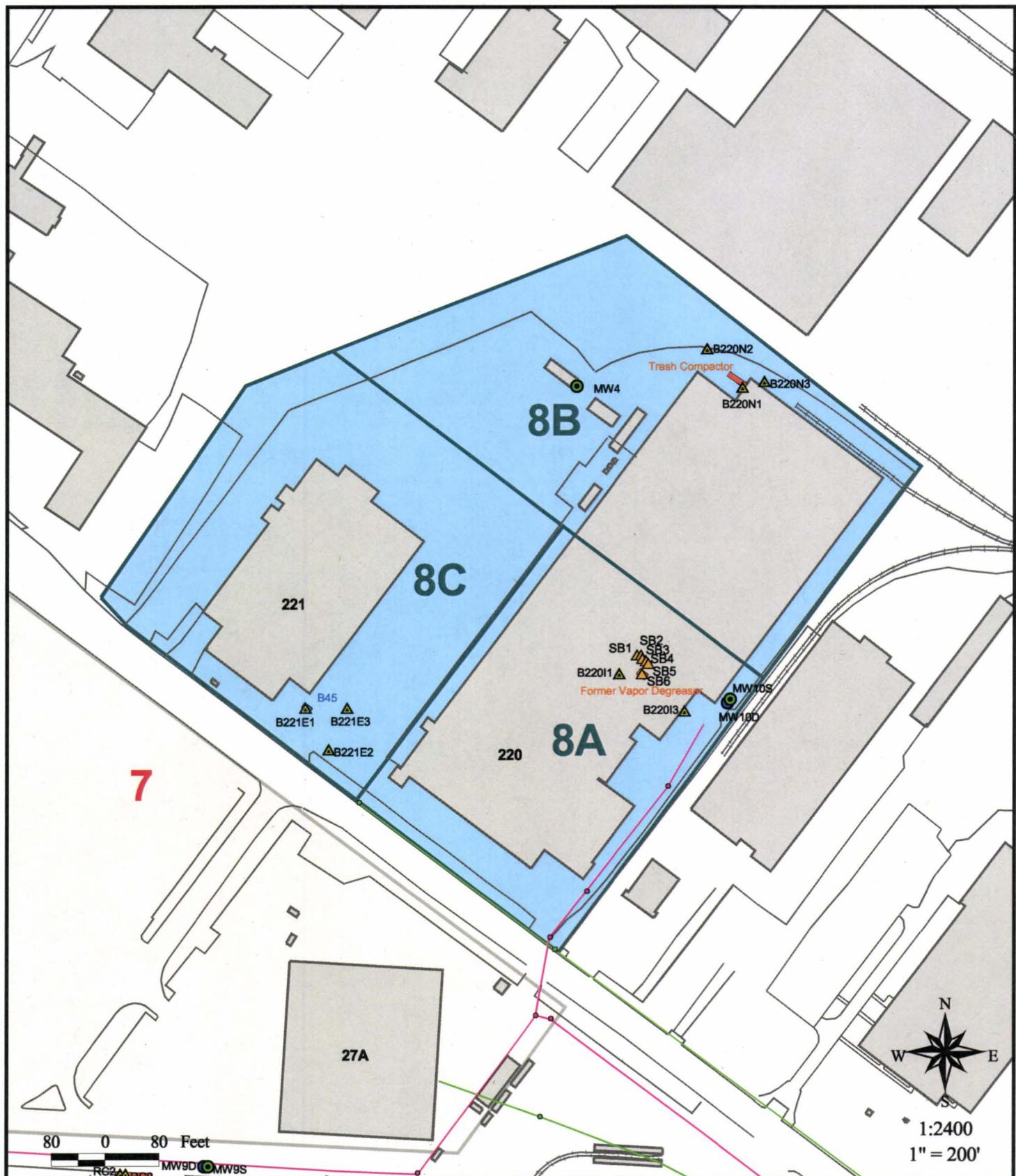
▲ Other Shallow Boring	▲ RFI Deep Boring/Temp. Piezometer
▲ RFI Shallow Boring	▲ UST Closure Sample
▲ RFI Shallow Boring/Temp. Piezometer	— Jet Fuel Line
▲ RFA Boring	- - - Abandoned Fuel Line
▣ Abandoned Shallow Piezometer	■ UST
▣ Abandoned Shallow Well	■ SWMU

Drawn by: KLC Approved by:

Checked by: Date: December 5, 2003

Risk Assessment & Management Group, Inc.

Figure 2.11
Exposure Area 1:
Runway Protection Zone,
Boeing Tract 1 South



Legend

- ▲ Other Shallow Boring
- ▲ RFI Shallow Boring
- ▲ RFI Shallow Boring/Temp. Piezometer
- ▲ RFA Boring
- Abandoned Shallow Piezometer
- Abandoned Shallow Well
- ▲ RFI Deep Boring/Temp. Piezometer

- Industrial Sewer Line
 - Sanitary Waste Line
 - Manhole (Type by Color)
- | |
|--------|
| ■ UST |
| ■ SWMU |

Drawn by: BSM Approved by:
Checked by: Date: September 13, 2004

**Risk Assessment &
Management Group, Inc.**

Figure 921
Exposure Area 8:
Sub Areas:
8A, 8B, & 8C
Office Complex North,
Boeing Tract 1 North